

Seat  
No.

--	--	--	--	--	--



मध - 051

**ELECTIVE - II**  
**Embedded System**  
**(New) (1311)**

P. Pages : 2

Time : Three Hours

Max. Marks : 100

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Answersheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. Solve **any two** sub-question from each unit.
5. Assume suitable data if necessary.
6. Use of non - programmable calculator is allowed.

**UNIT - I**

1. a) What is embedded system ? Explain application of Embedded system in recent trends. 10  
b) Explain software design for embedded system. Explain selection criteria of operating system. 10  
c) Write a short note on. 10  
i) SPI  
ii) I<sup>2</sup>C

**UNIT - II**

2. a) Draw & Explain core Architecture of ARM Processor. 10  
b) What is mean by pipelining ? Explain ARM7 Pipeline stages. 10  
c) Explain any five ARM Instruction's with suitable example. 10

**UNIT - III**

3. a) List the languages used for embedded system. Compare any two language. 10

- b) What is Need of Interfacing ? Draw & Explain Interfacing of Thermal Printer with ARM Board. 10
- c) Draw Interfacing of LCD with ARM Board. Write a program for it. 10

**UNIT - IV**

4. a) Draw & Explain kernel architecture. 10
- b) What is mean by scheduling ? Explain various scheduling Algorithm. 10
- c) Differentiate bet<sup>n</sup> GPOS & RTOS. 10

**UNIT - V**

5. a) Define patching. Explain It's various types in Detail. 10
- b) What is syslog ? Explain it's working. 10
- c) What is Embedded Linux ? Explain It's various features. 10

\*\*\*\*\*